ABSTRACT OF THE DISCLOSURE

A parallel flash programming system for use in motor vehicle assembly includes an input receptive of information relating to a predetermined number of processors connected to a system bus, processor flash programming attributes, and system bus attributes. An incremental flash programming times determination module is adapted, based on the information, to determine incremental flash programming times of a processor in relation to multiple interframe wait times respective of multiple parallel flash programming schema in accordance with the predetermined number of processors. A global flash programming time resolution module is adapted to determine, based on incremental flash programming times respective of multiple processors of the predetermined number, an assignment of the multiple processors to a number of parallel programming tracks yielding a global flash programming time in accordance with predetermined criteria.